grain and roofscape of the surrounding urban fabric;

- **Clustering** – if the building will be perceived alone or in the context of other tall buildings in the vicinity; and
- **Prominence and visibility** – whether the building can be seen from important or frequented places in the urban fabric, such as in the vista along streets or across open spaces.

5.1.17 These factors should be considered when establishing the appropriateness of the height of a tall building proposals in its context.

5.1.18 The relationship of a tall building with its context changes as its height increases. Height thresholds identified in Table 1 are indicative of the transition of a tall building from one category to the next, which happens around these points. Buildings on either side of a threshold should always be considered as being part of both adjoining categories (i.e. at the top-end of one or the bottom-end of the other).

5.1.19 The relative tall building definition provides an accurate understanding of the relative height of a tall building in its context. However, it relies on an assessment of the context height of an area. This process requires technical knowledge and resources. As such this definition is appropriate for analytical purposes undertaken by urban design professionals, but it is less suitable or practical for planning policy.

Absolute definition

5.1.20 An unambiguous approach for planning purposes to defining tall building is to establish area specific height thresholds for geographic areas.

5.1.21 Area specific definitions of tall buildings can factor in sensitivities to greater height that may exist in specific areas. This is especially pertinent in Greater Cambridge, where a building that is marginally higher than the context may already cause significant impact on the skyline and to city image views.

5.1.22 Defining absolute tall building definitions requires spatial analysis and the consideration of a range of relevant factors, and is best undertaken by the planning authority as part of plan making process. The analysis will need to consider multiple factors, including the defining townscape and landscape characteristics of an area, its prevailing or emerging context height, the local topography, the relevant heritage context and its setting, the sensitivity of the skyline and the height of the tree line among others.

5.1.23 Based on this, area specific tall building thresholds can be established for geographic defined areas, providing a robust basis for the application of planning policy on heights. Any building at or above the defined threshold in a location would be considered tall and will need to comply with relevant tall building policy and guidance.

5.1.24 The Cambridge Local Plan (2018) sets out absolute tall building definitions, which are reviewed and refined by this strategy (see Section 5.2).

5.1.25 Absolute tall building definitions could also be established for specific sub-areas, for example, through Area Action Plans, other framework plans, or outline applications with parameter plans and associated design codes, informed by relevant supporting assessments such as landscape character, townscape character, and contextual height analysis.

Other relevant definitions / terminology

5.1.26 The definition and classification of tall buildings in the previous section primarily relate to a single tall building located within a lower-rise context, and the way in which it affects both the surrounding area and the skyline.

5.1.27 However, this definition does not address other scenarios, such as the clustering of buildings of similar height that may collectively be perceived as tall in the wider area and could result in a cumulative visual impact (as for example the development at Station Road Cambridge).

5.1.28 Accordingly, it is necessary to introduce and define several related concepts that are relevant to discussions of tall buildings and the skyline, and which will be used throughout this report. These are:

- **Contextual building (S1)**
  - **Definition -** Height matches the context height of a location and its variation, scale and form responds to prevalent characteristics.
  - **Townscape and Skyline Impact -** Building fits in with its context in respect of its height and scale and does not appear on skyline.

- **Higher building (S2)**
  - **Definition -** Building rises above the prevailing context height but remains below the relevant tall building threshold in a location.
  - **Townscape and Skyline Impact -** Building may be locally prominent in its context but it does not appear tall. On Cambridge's skyline, building will generally remain below the treeline or occasionally be visible in between the crowns of trees.

- **Large scale building (S3)**
  - **Definition -** Building of significant massing that is of greater scale (length, width and/or height) than its prevailing context.
  - **Townscape and Skyline Impact -** Building stands out locally and, subject to its height, on the skyline. Increased scale amplifies the height impact of a building. A higher building of large scale and bulk can have a similar detrimental impact as a tall building, whilst a tall building of larger scale may have a similar impact such as a very tall building. A large scale building with a height above the context height of an area (i.e. defined as a Higher Building) should be treated similar to tall buildings by policy.

- **Tall, very tall or super tall building (S4)**
  - **Definition -** Single building that rises above the locally applicable tall building threshold (as defined in 5.1.13).
  - **Townscape and Skyline Impact-** Building rises notably above its surrounding context. In Cambridge it is likely to be visible above the treeline and on the skyline. The greater its height the more it will impact the skyline.

- **Landmark building (S5)**
  - **Definition -** A higher, tall, very tall or super tall building that is purposefully designed to be a singular, contrasting, highly distinct and memorable marker in

the local townscape and on the skyline, and that marks a specific, meaningful and significant place in the city.

- **Townscape and Skyline Impact-** Building is locally outstanding and instantly recognisable in its local context and/or on the skyline due to its height, form and appearance. Its skyline impact should be tested, and must be deliberate and positive. Generally the extent of impact should be proportionate to the significance of the marked place or function in the context of the entire city, and respond sensitively to other landmarks in strategic views. Landmarks should be of exceptional design quality and clearly recognisable as the same building from all sides.

- **Area of increased context height (S6)**
  - **Definition -** Defined area where the average height of new development is permitted to be greater than in the surrounding context.

    New buildings that fit in with the new context height of the area are not considered as tall, despite appearing so in the context of their lower rise surroundings.
  - **Townscape and Skyline Impact-** An area of increased height may have an impact on the skyline if it rises above the prevailing roofscape and/or treeline. Any area where the context height is proposed to be increased should be tested in views to understand the impact from increased height on the skyline and character of the city.

    The increase of the average height should only be promoted in an area that is of significant size and (by themselves or with adjoining developments) will form a new place with its own coherent character, and where its skyline impact is appropriately balanced with the planning or development benefits for the city.

    Along the edges of areas of increased height, mediation may be needed to avoid stark contrasts in height between development, for example through the stepping down of height or the creation of adequate green buffers.

- **Tall building cluster (S7)**
  - **Definition -** A number of tall buildings that are concentrated in a compact and clearly defined area.
  - **Townscape and Skyline Impact-** Cumulatively a tall building cluster will stand out above the tree or roof line, and have a strong impact on the character and distinctiveness of the skyline. It may affect views to other landmarks or heritage assets. As such clusters should be highly exceptional, subject to high levels of scrutiny and testing, and should only be provided where they mark a significant location in the city and where impacts on the skyline and strategic views are acceptable. Clustering can keep the impact of tall buildings on the skyline localised and may prevent the fragmentation of the skyline from scattered tall buildings. The configuration of height in a cluster should be well managed to ensure a coherent and distinct cluster image in views from all directions.

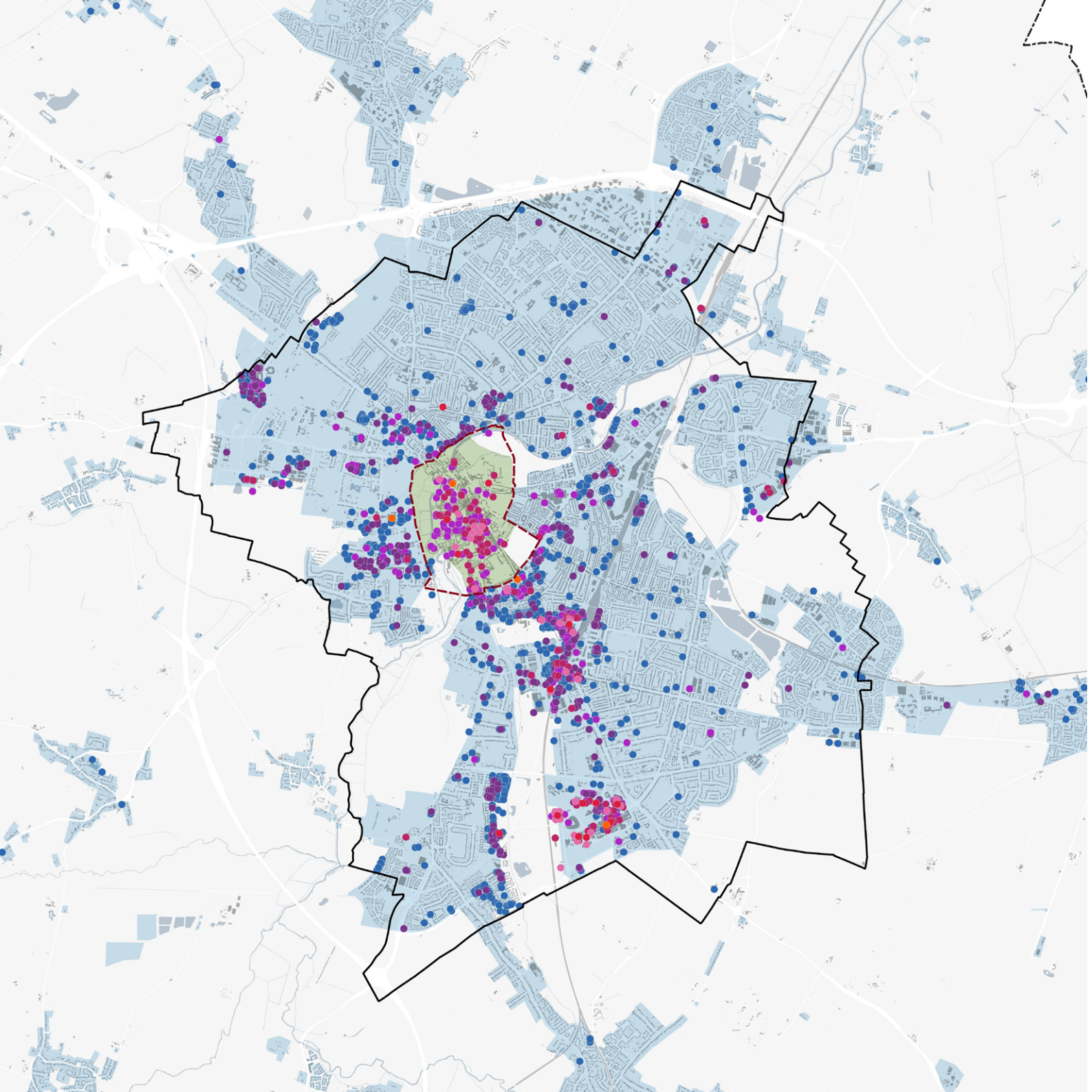


Figure 24: Classification of tall buildings based on current Local Plan thresholds - Cambridge City scale

5.2 Greater Cambridge Tall Building Definition

Current Planning Policy Approach

5.2.1 The Cambridge Local Plan (2018) Policy 60 and associated Appendix F sets out tall building thresholds which automatically trigger the need to address additional criteria as part of a planning application (Figure 24):

- “Within the historic core, building proposals of six storeys or more (assuming a flat roof with no rooftop plant and a height of 19m above ground level) would automatically trigger the need to address the criteria set out within the guidance. However, dependent on the exact location within the historic core, buildings of four to six storeys may also need to be evaluated against the assessment criteria herein, due to proximity to heritage assets and potential impacts on key views
- Within the suburbs, buildings of four storeys and above (assuming a flat roof with no rooftop plant and a height of 13m above ground level) will automatically trigger the need to address the criteria set out within the guidance.”

5.2.2 This approach simplifies the city into two broad areas, the city centre and the suburbs. However, it is not informed by a more detailed understanding of the morphology and heights in the city. For example, it classifies areas outside the historic core as suburban even if they have greater heights, for example as in the Addenbrooke’s or Cambridge Science Park.

5.2.3 In areas that are either higher or lower than the average ‘background buildings’ (as defined in Local Plan Appendix F) this threshold is either causing an under or over representation of tall buildings as demonstrated in the figure. For reference, this approach classified 3,001 buildings as tall buildings within Cambridge city alone, which overstates significantly the number of buildings that genuinely could be described as tall in the city.

5.2.4 Whilst the principle of setting area specific tall building thresholds is robust, it requires more accurate and context sensitive mapping to be an effective planning tool.

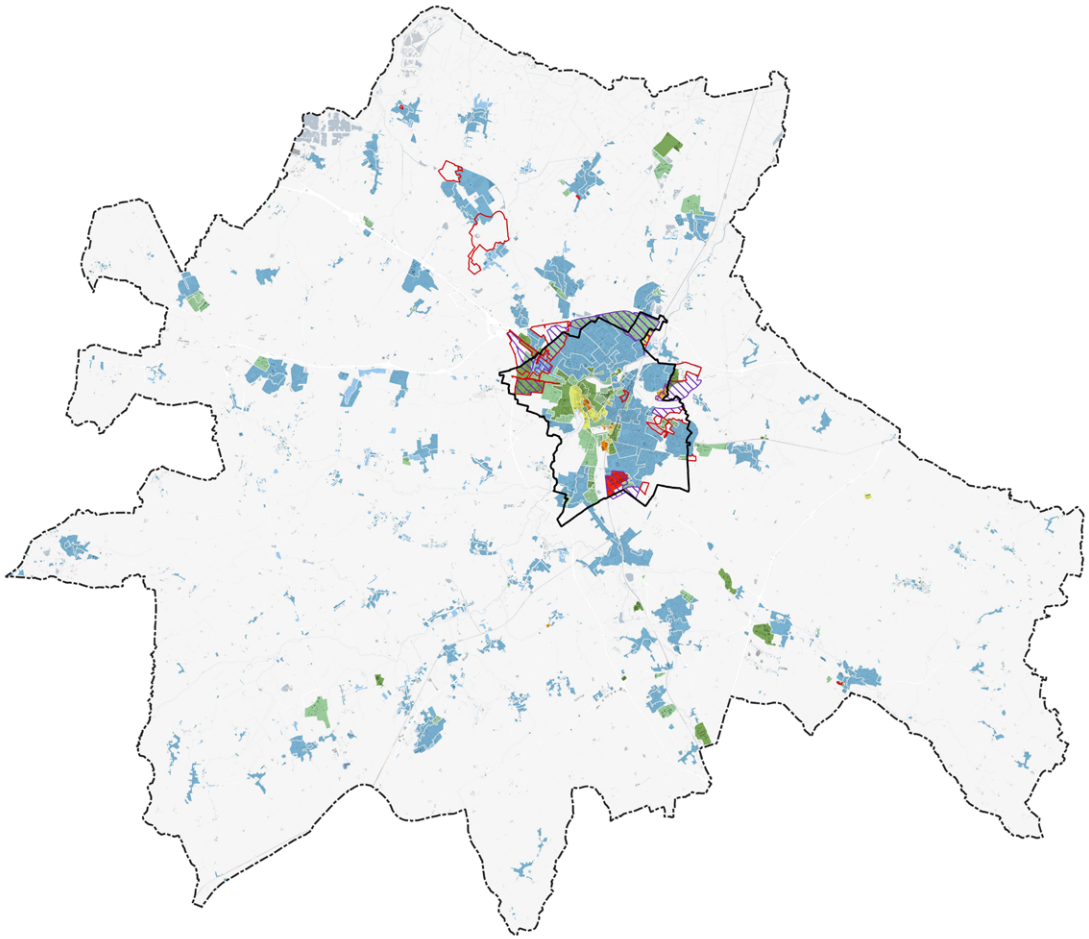


Figure 25: Local Context Height including planning permission - District wide scale

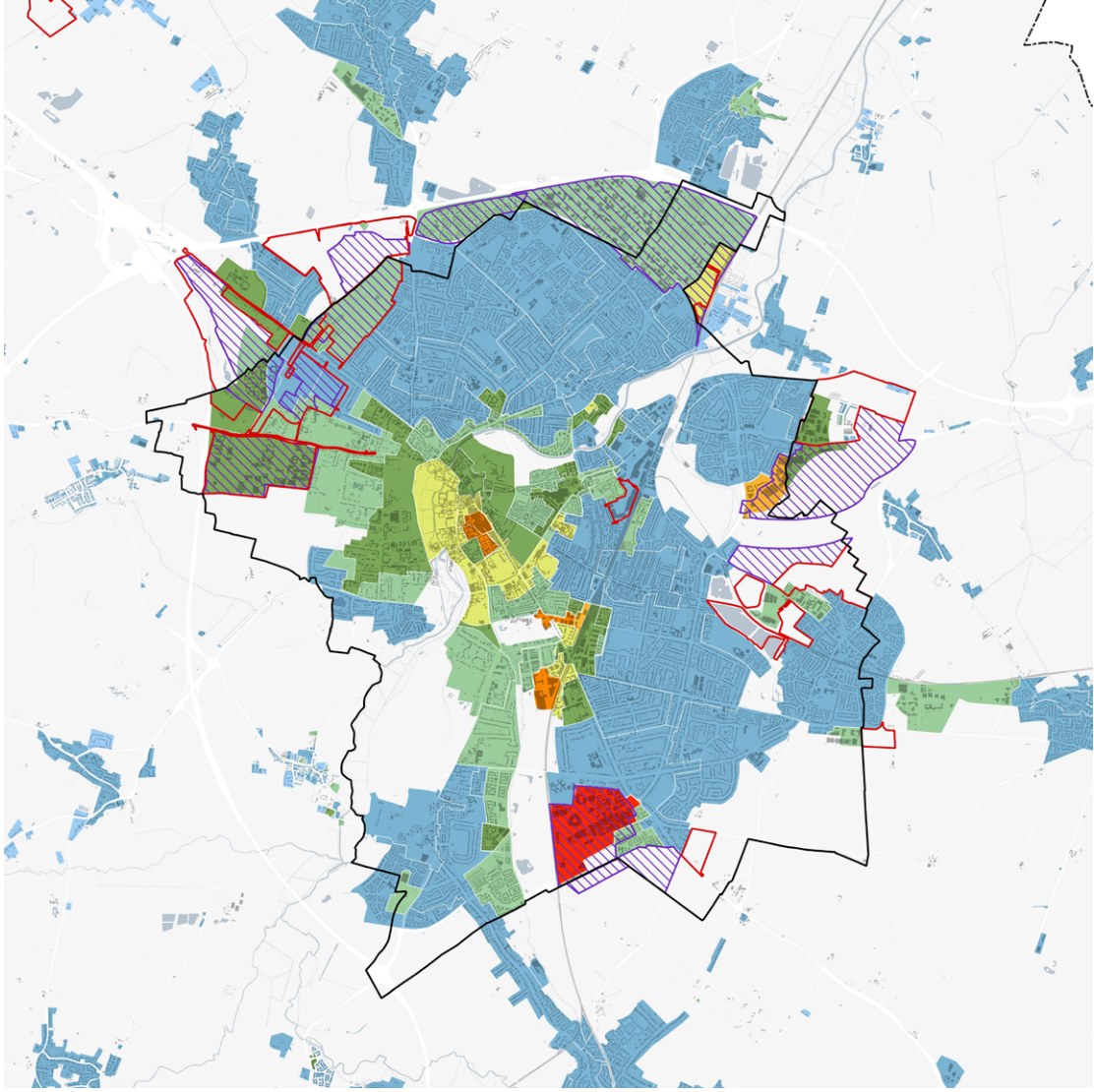


Figure 26: Local Context Height including planning permission - Cambridge City scale

Cambridge District
South Cambridgeshire District

Local Context Height
- 4-6m (1-2 Storeys)
- 6-9m (2-3 Storeys)
- 9-12m (3-4 Storeys)
- 12-15m (4 Storeys)
- 15-18m (5 Storeys)
- 18-21m (6 Storeys)
- 21-24m (7 Storeys)
- 24-27m (8 Storeys)
- 30m+ (10 Storeys+)
- Outline planning consents in place
- Area with masterplan or framework in place

Context Height Mapping

5.2.5 This study has calculated and mapped prevailing context heights across Greater Cambridge based on the typological character areas defined by the character area assessment (see Section 2.4 and 3.5). This provides a more accurate and context specific basis to defining a tall building. Character areas typically cover sufficiently large areas and have a relatively coherent built form and heights, and as such the context height is a reliable indication of what is perceived as the prevailing height in an area.

5.2.6 For each character area this study calculates the average maximum height of buildings with the exception of buildings that are defined as tall (to avoid skewing the results).

5.2.7 The Local Context Height mapping (Figure 25 and Figure 26) provides an understanding of the pattern of height across the City and South Cambridgeshire.

5.2.8 Areas with greater heights (Context Heights between 9m and 24m) are concentrated in Cambridge City Centre, but also in a few locations at the periphery of the city, including in business parks such as Cambridge Science Park, University developments and new housing areas. The city centre is largely surrounded by areas of predominantly suburban heights (Context Heights up to 9m). Addenbrooke's to the south is an outlier with a Context Height between 24 and 27m.

5.2.9 In South Cambridgeshire, outside of the city centre, settlements are typically of low rise rural height (context height below 9m). However a few areas are identified with slightly greater heights, typically business parks or industrial developments.

5.2.10 Planning permissions for larger development schemes have been mapped and overlaid over the Local Context Height map. This helps identifying where new development is coming forward that may have potential to change the prevailing height in an area.

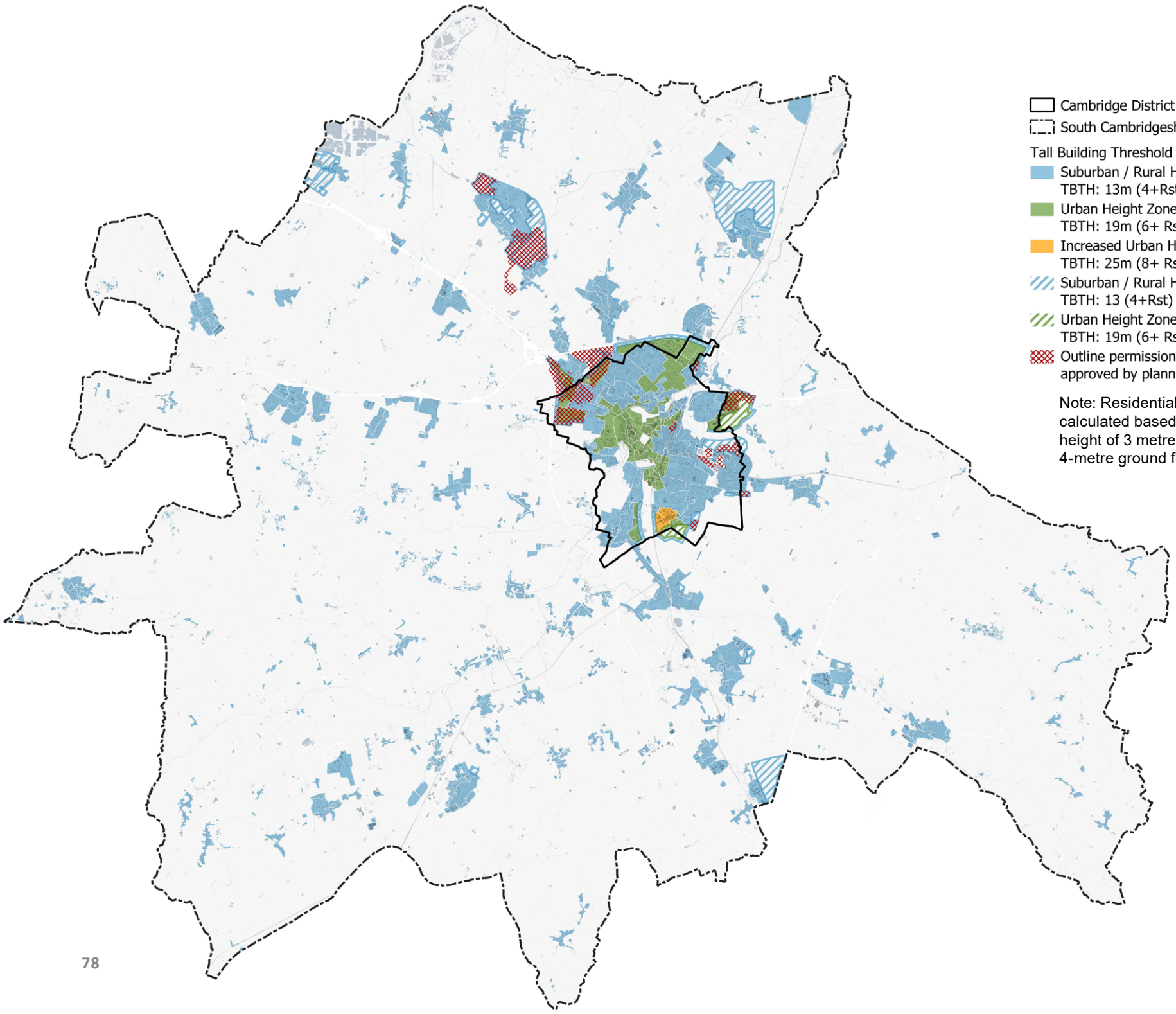


Figure 27: Tall Building Threshold Zones - Cambridge District wide scale

Tall Building Threshold Zones

5.2.11 The Context Height Mapping has been used to identify the following three Tall Building Threshold Zones in Greater Cambridge:

Zone	Broad Context Height	Tall Building Threshold (TBT)
Suburban / Rural Height Zone	Context Height up to 9m (up to 3 Rst)	13m (4+ Rst)
Urban Height Zone	Context Height between 9m and 21m (3 to 6 Rst)	19m (6+ Rst)
Increased Urban Height Zone	Context Height between 21 and 27m (7 to 8 Rst)	25m (8+ Rst)

Table 1: Tall building height thresholds in respect of zones and broad context height
(note: Rst stands for Residential Storey)

5.2.13 Each Zone is mapped, which enables a clear understanding for each area of what constitutes a tall building.

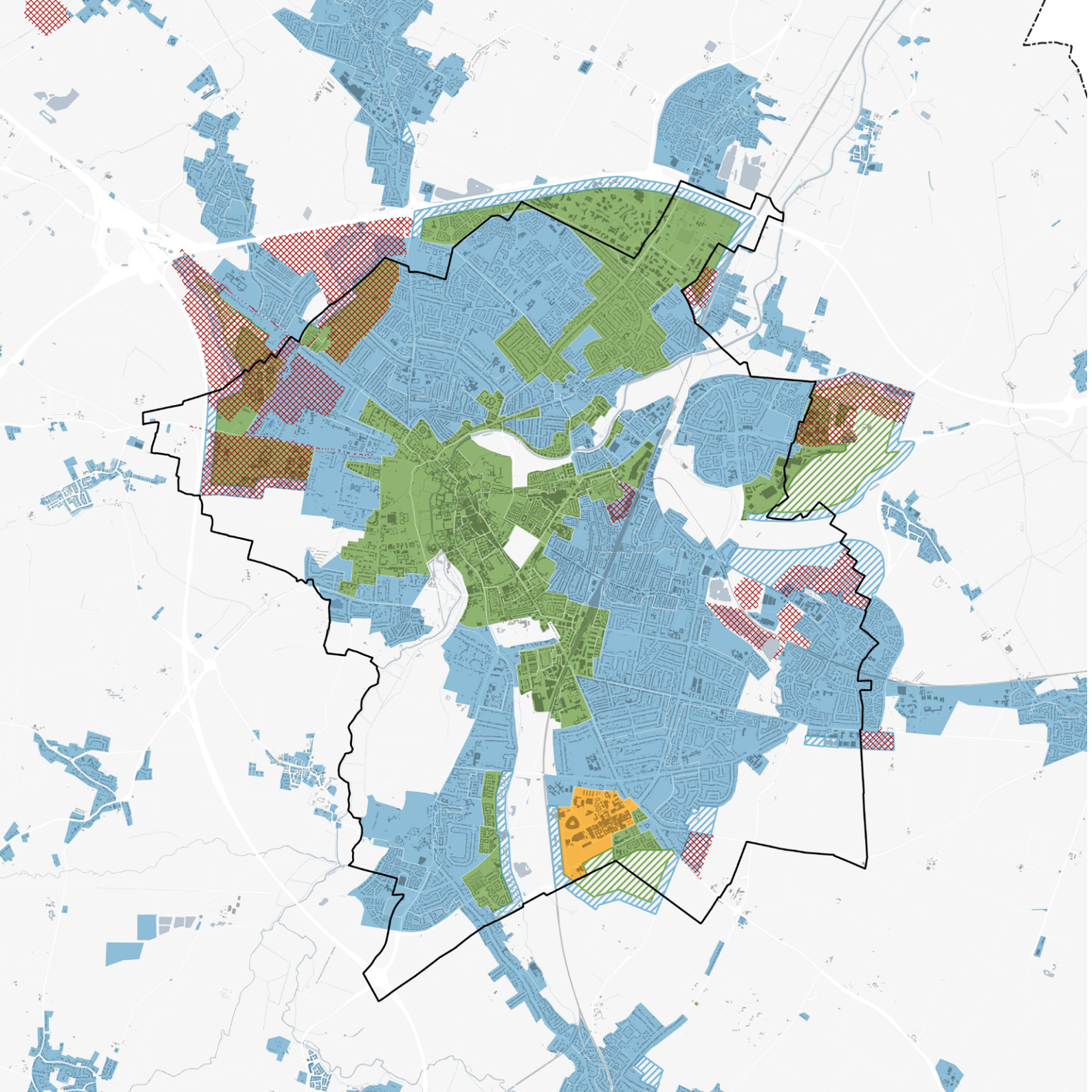
5.2.14 The Tall Building Threshold Zones reflect the underlying context height, however, contextual factors and sensitivities were taking into account in defining boundaries and respective tall building thresholds. This process considered the size of character areas, the characteristic of the surroundings, the sensitivity of an area to tall buildings, and the prospect for change and place making in growth and regeneration areas.

5.2.15 On large growth areas with significant intensification potential the Urban Height Zone TBT is promoted, whilst in smaller opportunity areas the surrounding Tall Building Threshold has been applied.

5.2.16 Along the edges of Urban Height Zones where they interface with the open landscape, a 100-metre buffer applying the lower Suburban/Rural Tall Building Threshold has been introduced. This is intended to protect the transition to the city's rural setting from inappropriately tall development and to ensure that building heights in these areas are subject to additional scrutiny.

5.2.17 Figure 27 and Figure 28 show the identified height bands for Greater Cambridge and Cambridge City respectively.

5.2.18 The Suburban / Low Rural Height Zone broadly covers the majority of settlements in South Cambridgeshire and suburban parts of Cambridge. The Urban Height Zone captures Cambridge Historic City Centre and it surrounding periphery



Note: Residential storey heights are calculated based on a typical floor-to-floor height of 3 metres per upper storey, with a 4-metre ground floor.

Figure 28: Tall Building Threshold Zones - Cambridge City scale

including the area around the station, but also University Campus areas, inner urban road corridors, and growth areas (existing and emerging) on the city fringes. The Increased Urban Height Zone principally only covers the Addenbrooke's campus.

5.2.19 For both, the Suburban / Low Rural Zone and the Urban Zone the thresholds from the Local Plan are adopted. The respective 13m and 19m thresholds are well established, consider prevailing height characteristics and skyline sensitivities, and ensure consistency of this study with the current policy approach. The threshold of the Increased Urban Height Zone is set one approximate storey above the prevailing height in the Addenbrooke's campus.

5.2.20 The Tall Building Thresholds take into account the sensitivity of Cambridge's subtle skyline and the harmful effect that even a slight increase in height above the context height can have on the skyline.

5.2.21 Visual testing undertaken as part of this study validates the appropriateness of these thresholds. They are effective in identifying when development begins to emerge above the roofscape and/or treeline, and becomes visually prominent or intrusive on the skyline.

5.2.22 These thresholds should be used as indicators for when buildings ought to be considered 'tall' for planning policy purposes. Any building that meets or exceeds the applicable tall building threshold in its location will be required to comply with relevant tall building policy and guidance. This approach ensures that developments with potential to impact the skyline are appropriately scrutinised through the planning process, whether as part of local plan preparation and adoption, or at the pre-application and application stages.

5.2.23 In some cases, local planning authorities have approved (or may do so in the future) more detailed parameter height plans (see cross hatched areas in Figure 28) that have been tested through the development management process. In such circumstances, these site-specific parameters will supersede the tall building thresholds set out by this study.

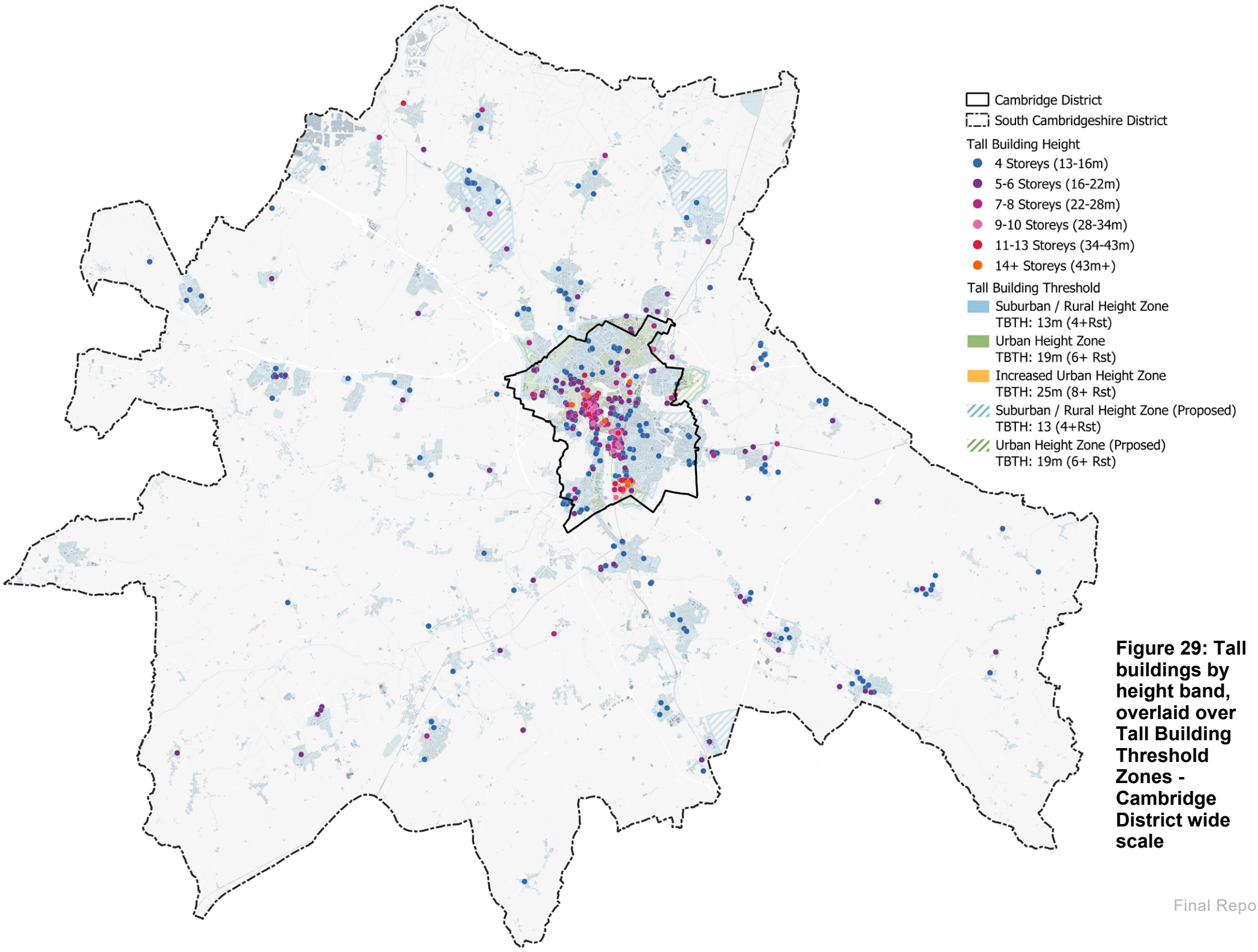


Figure 29: Tall buildings by height band, overlaid over Tall Building Threshold Zones - Cambridge District wide scale

5.3 Existing Tall Buildings in Greater Cambridge

Classification by absolute height

5.3.1 The proposed revised approach to defining tall buildings in Greater Cambridge as set out in Section 4.2 National Policy and Guidance, has been applied on the existing height context and is represented in Figure 29. This identifies that using this methodology a total of 542 buildings in the district are classified tall, 352 buildings of which are in the city boundary. This is a significant reduction from the hypothetical 3,001 buildings that would be considered tall under the Cambridge Local Plan current policy approach, and presents a more accurate description of the tall building context in Greater Cambridge.

5.3.2 The tall building survey reveals the following:

5.3.3 In the Suburban / Rural height zone the majority of tall buildings (237) are only marginally above the tall building threshold of 13m (4 storeys - 13-16m). Only a few buildings (77) are of greater height - 64 in the 5-6 storey bracket, and 13 above. Principally these are historic landmarks, such as church spires and few institutional buildings.

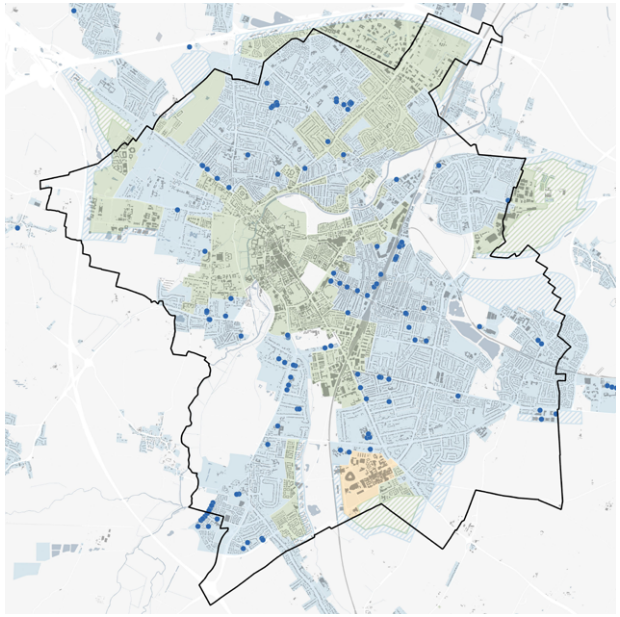


Figure 30: Tall Buildings in Cambridge City Centre - 4 storey band (13-16m)

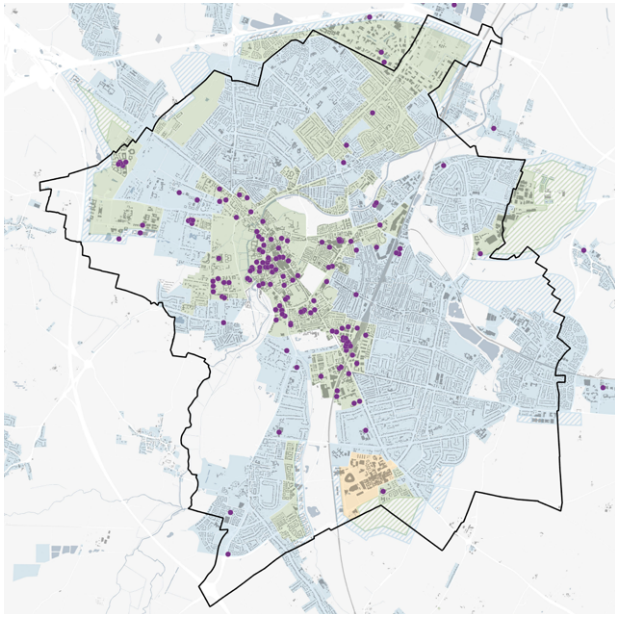


Figure 31: Tall Buildings in Cambridge City Centre - 5-6 storey band (16-22m)

5.3.4 In the Urban Height Zone the majority of tall buildings (130) are in the 5-6 storey bracket (19-22m). A further 46 are in the 7-8 storey bracket (22-28m) and 28 in the height brackets above. Principally they are singular highpoints spread throughout the various areas of this height zone.

5.3.5 In the Increased Urban Height Zone (Addenbooke's Campus) building heights of tall buildings range from 8 storeys (25- 28m) at the lower end to above 14 storeys (43m+).

5.3.6 Principally, in Cambridge, the majority of tall buildings above 22m are concentrated in three locations: the city

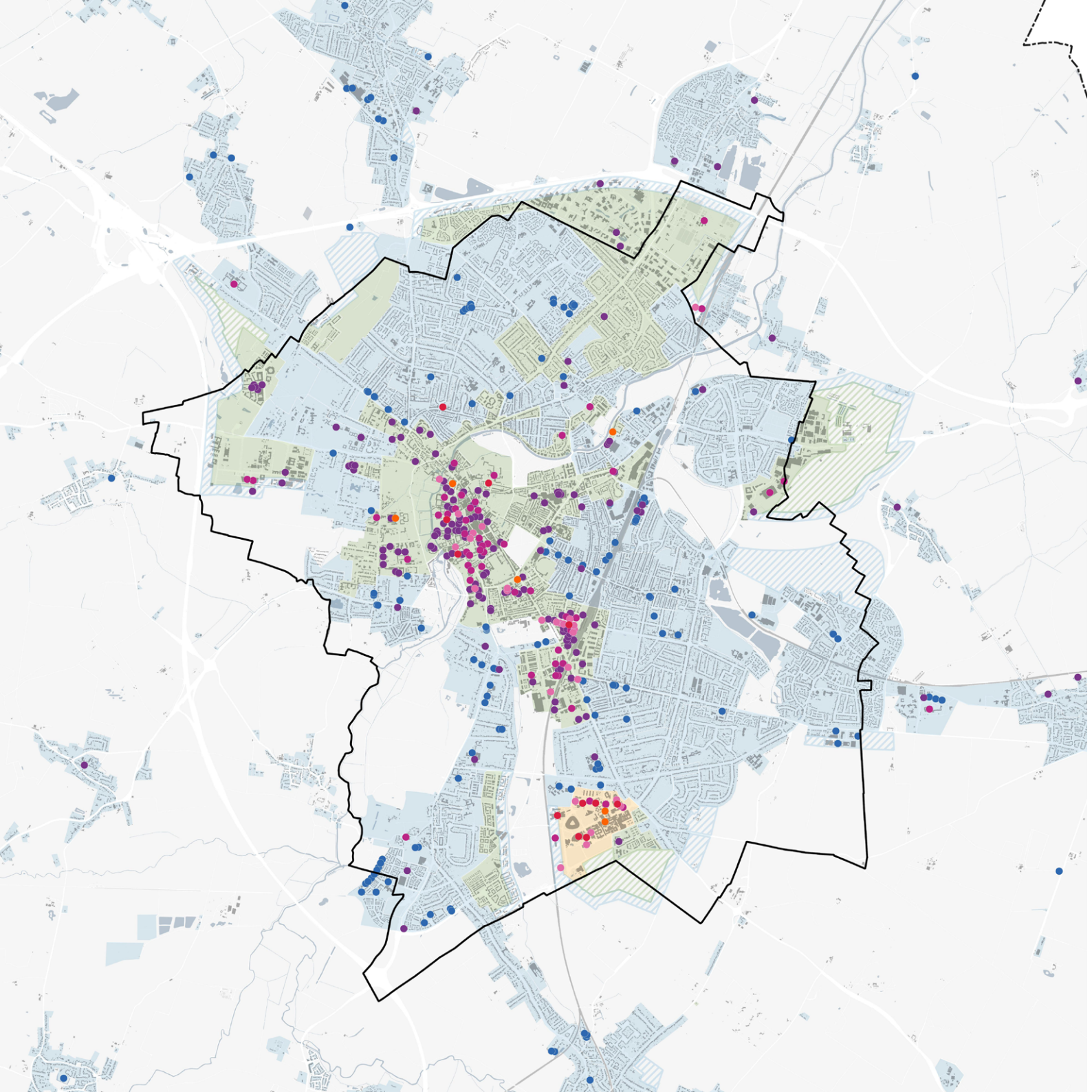


Figure 32: Tall buildings by height band, overlaid over Tall Building Threshold Zones - Cambridge City scale

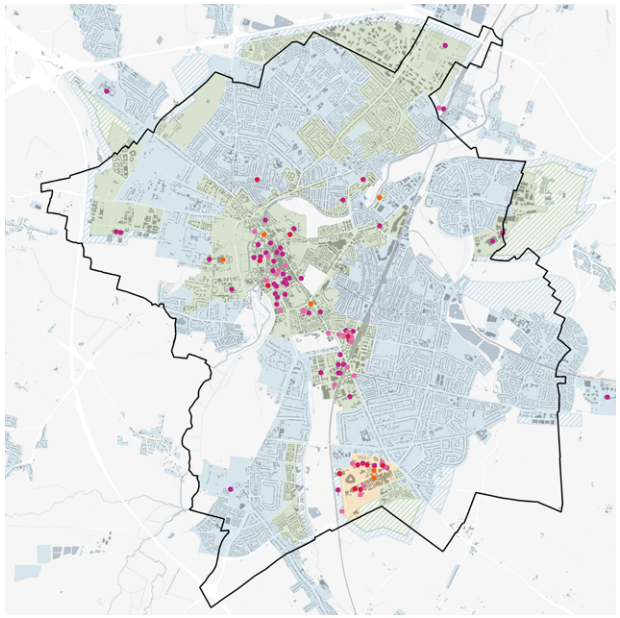


Figure 33: Tall Buildings in Cambridge City Centre - 7 storey band (22-28m) and above

centre, west and southwest of Cambridge Station, and in the Addenbrooke's campus. A few individual highpoints are spread across the urban fabric.

5.3.7 Buildings with the greatest heights (above 34m) are distributed more loosely within and around the historic city centre. Principally these are historic city landmarks. The second concentration of landmarks are situated in the Addenbrooke's Campus, well away from the historic city centre landmarks.

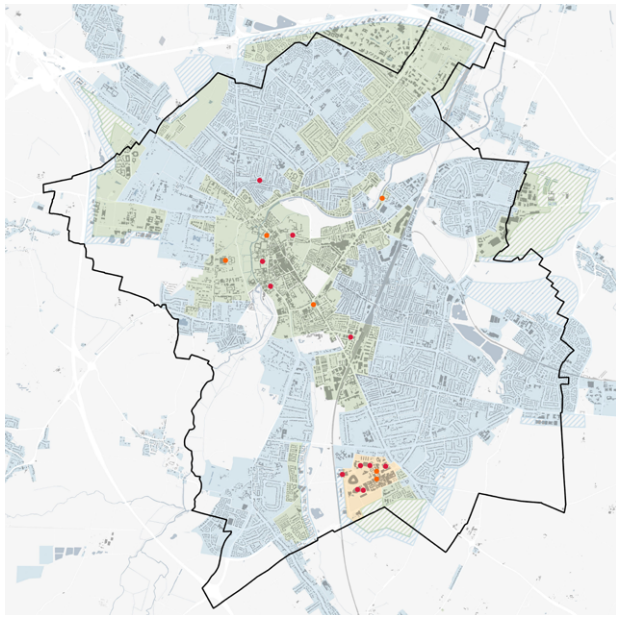


Figure 34: Tall Buildings in Cambridge City Centre - 11-13 storey band (34-43m) and above

Classification by type

5.3.8 Based on this analysis the existing tall buildings in the study area broadly fall into the following types:

Historic Tall Buildings

- Church spires
- Historical Institutional Buildings
- Other historic

Modern Tall Buildings

- Post-war slab block
- Post war point block
- Late 20th/early 21st century apartments
- 21st century masterplanned residential
- Commercial/Office
- Institutional buildings
- Other modern buildings.

Cambridge Station Square © Louis Sinclair

6 Cambridge Skyline and Tall Building Strategy

6.1 Introduction

6.1.1 The preceding chapters have set out a comprehensive overview of Cambridge and South Cambridgeshire. They have established an understanding of aspects that are sensitive to tall and larger scale buildings and defined what constitutes a tall building within the city and the wider district. This chapter sets out the strategy for assessment of buildings that are considered tall.

6.1.2 The baseline study has shown how townscape, landscape, heritage and skyline qualities that are intrinsically linked to the Cambridge's history, its experience and its perception and identity. Taller developments, due to their greater height and visibility, inherently have the potential to affect, disrupt or undermine established characteristics of the townscape, the skyline, the setting of heritage assets or the relationship of city or rural villages with the landscape. Therefore taller developments require greater levels of scrutiny during the design development and application stage to understand the effect they may have on any of these sensitivities and specifically the skyline, and to make sure their impact remains appropriate.

6.1.3 The Cambridge Local Plan (2018) Policy 60 sets out a number of policy criteria that proposals for tall building should be assessed against in order to be acceptable. This is complemented by Appendix F, which provides more information on the skyline, landmarks and views, and how the policy is expected to be applied. The policy establishes a criteria-based framework for the assessment of taller building proposals in the city. This requires applicants for taller buildings to undertake significant testing during the concept stage and design development, to establish and then demonstrate to the planning authority the appropriateness for a taller building in its location.

6.1.4 The current policy approach however does not providespatial definitions on areas that are sensitive to tall buildings or indications of appropriate areas with associated height guidance. The appropriateness of tall buildings is established through a constructive pre-application process with the planning authority, drawing on the established criteria in Policy 60 and the testing from recognised viewpoints. However, the initiative for change rests with the development community, and until proposals are tested through this process, there is limited clarity on whether specific height approaches will be acceptable. This creates a degree of uncertainty for developers, as the process is not guided by a proactive, city-wide understanding of the skyline or of the sensitivities that may render certain areas less suitable for buildings of greater height.

6.1.5 Historically much of Cambridge's development was low to medium rise and effectively remained hidden below the tree line in views, or integrated within the established urban fabric. However, land economics typically require increased densities on urban renewal sites, which means buildings are often proposed at greater heights. Contemporary development, especially on central infill sites but also on larger brownfield sites, are more likely to come forward with heights that rise above their surrounding built form and landscape context, and that may be considered tall. Modern buildings, such as apartments, offices, and especially R&D and industrial

developments, by their nature have often larger scale floorplates, which result in more bulky massing. Functionally designed, their tops are often characterised by technical installations such as plant and lift rooms, flues and cranes, rather than the decorative turrets, spires and chimneys that adorn historic landmarks in the city. With greater scale and bland or technical appearance, their visual impact on the skyline or in views can be much more conspicuous and domineering, even at only modestly greater heights.

6.1.6 Preserving and enhancing the distinct image of Cambridge's skyline, specifically of the historic core with its famous buildings and treasured landmarks, will remain paramount. However, the city needs also to provide opportunities for modern new development, that responds to current trends and market demands to support and underpin the success and competitiveness of Cambridge as a growth location.

6.1.7 To support this, this study proposes a more pro-active approach to tall developement than set out by the current policy. It proactively identifies areas and parts of the skyline that are specifically sensitive to tall buildings and those, where there may be greater scope for height. In addition it provides design principles that can help to mitigate impacts and integrate new development better with Cambridge's skyline and townscape characteristics. This approach is set out in this chapter and chapter 7 of this report.

6.1.8 Whilst Local Plan (2018) policy principles and much of the supporting guidance remain valid, this study proposes to complement them with more detail and provide clarity on how the policy is applied and what its effects and recommendations are on specific geographic areas. As such the strategy will build on and provide further detail to Appendix F, whilst, where beneficial, recommend superseding aspects of the existing policy guidance.

6.2 Aims and Objectives

6.2.1 In short, the overarching aim of this strategy is to put in place an approach to taller buildings that helps ensure the preservation and enhancement of valued townscape and skyline characteristics of Cambridge and South Cambridgeshire, whilst planning for an evolving skyline with high quality buildings that support the city's success and growth.

6.2.2 The strategy aims to deliver the following objectives:

1. **Provide a pro-active, planned and coordinated approach to the management of the skyline and taller buildings that supports the sustainable growth of Cambridge and South Cambridgeshire;**
2. **Preserve and enhance valued townscape, landscape, heritage and skyline characteristics of Cambridge and South Cambridgeshire and ensure that individual and cumulative impacts of taller buildings are fully understood and mitigated;**
3. **Where appropriate allow new places to establish their own proportionate and meaningful addition to Cambridge and South Cambridgeshire's skyline and character**
4. **Help ensure that taller buildings appropriately respond to and integrate with the surrounding context and deliver positive benefits to the local community; and**
5. **Help ensure that taller development proposals will provide the highest quality of architectural and sustainable design.**

6.3 Approach

6.3.1 The skyline and tall buildings strategy comprises the following five components:

1. **Responding to sensitivities to tall buildings** – introduced in chapters 2 and 3, policy criteria in this chapter 6.
2. **Area specific definition of what constitutes a tall building** – set out in chapter 5.
3. **Directing tall buildings to appropriate locations** – set out in this chapter 6 together with design guidance for key development areas.
4. **General design guidance for the skyline and taller buildings** – set out in chapter 7.